DOCUMENT RESUME

ED 327 552 TM 015 892

AUTHOR Handley, Herbert M.; Thomson, James R., Jr.
TITLE Determination of Reliability and Validity for Myself as a Teacher Scale.
PUB DATE Nov 90
NOTE 11p.; Paper presented at the Annual Meeting of the Mid-South Educational Research Association (19th, New Orleans, LA, November 14-16, 1990).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Beginning Teachers; Concurrent Validity; Elementary School Teachers; Elementary Secondary Education; Factor Analysis; Higher Education; Item Analysis; *Likert Scales; Predictive Validity; Secondary School Teachers; *Self Concept Measures; *Student Teachers; *Teacher Attitudes; Teacher Morale; Test Construction; *Test Reliability; Test Validity
IDENTIFIERS *Myself as a Teacher Scale

ABSTRACT

The reliability and validity of the Myself as a Teacher Scale (MTS), developed to assess the self-concept of teachers, were studied. Materials developed by David P. Butts and Robert Howe were used to construct a 62-item Likert-type scale asking individuals to rate themselves on certain criteria. After a pilot study with 92 preservice teachers and item analyses, the number of items was reduced to 32. Initial internal reliability was derived from a study of these 32 items. A second group of 42 student teachers was tested, and a reliability coefficient of 0.92 was achieved. A retest with these students found a test-retest reliability coefficient of 0.89. The internal consistency of the MTS was evaluated using 426 student teachers for an alpha coefficient of 0.96. Thirty-two preservice teachers were administered the MTS and the Tennessee Self Concept Scale for a modest correlation, indicating concurrent validity. Predictive validity was examined in studies of the classroom performance of student teachers and teacher morale of 35 first-year teachers. Factor analysis through principal component analysis of responses of 422 preservice and inservice teachers demonstrated construct validity. One major dimension of behavior, an overall measure of self-concept as a teacher, was identified. The MTS appeared to be an effective measure. Factor loadings are listed in table form. (SLD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED327552

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

HERBERT M. HANDLEY

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Determination of Reliability and Validity for Myself as a Teacher Scale

Herbert M. Handley

James R. Thomson, Jr.

Mississippi State University
Box 5365
Miss. State, MS 39762

Paper presented at the Annual Meeting of the
Mid-South Educational Research Association
New Orleans, LA

November 1990

TM015892

Positive self concept is a personal trait identified as being associated with high efficacy among teachers. In preservice teachers, according to Halpin (1982), those with high self concepts tended to be emotionally stable, expedient, positive, imaginative, venturesome and relaxed. Doherty (1980) also found that student teachers with high self concepts were rated higher on general teacher competencies, staff relationships and were found to have fewer emotional problems than did their low self concept counterparts. Mundel-Atherstone (1980) also reported that less successful teachers rated lower on self concept measures of trust, self control and responsibility than did teachers with high self concept.

If teachers have strong self concepts, a psychological safety appears to exist in their attitudes which reflects succoring and stability to students whose self-concepts are in a state of constant flux. Teachers who are self-secure do not feel the need to compete with students for control of a situation. Such teacher view themselves as facilitating rather than controlling student behavior.

Hence, self concept appears to be an affective measure needing to be developed in both preservice and inservice teachers. Burgy (1972) has demonstrated that positive self concept can be enhanced or reinforced in teacher education programs.

If positive self concept is to be reinforced in teacher education, then, the need exists to measure it accurately and easily. Unfortunately, available instruments, such as the

Tennessee Self Concept Scale (Fitts, 1965), are not appropriate for this purpose. Such instruments appear to be designed to measure source traits of personality, rather than surface traits. Soares and Soares (1977) developed a convincing argument for the need of instruments to measure self concept relative to specific situations; i.e., the need for viewing self in the teaching role. This dimension of self could be more readily mapped and changed in behavioral encounters, whereas, source derived self concept measures would not change readily.

The Myself as a Teacher Scale developed by the investigators appears to have merit for assessing the self concept of teachers. This instrument is relatively short, consisting of 32 Likert-type items. Data collected with this scale are correlated with student teacher performance and with teacher morale among experienced teachers. This report contains technical information relative to the development of the MSTS and its reliability and validity.

The Problem

The problem of this study, then, was to determine the reliability and validity of the Myself as a Teacher Scale, an instrument designed to assess self concept in teachers. Specifically, answers to the following questions were sought:

1. How was the instrument developed?
2. What are the internal and test-retest reliabilities of the MSTS?
3. How valid is the instrument relative to content,

Research Methodology and Results

Development of the Instrument

Materials developed and distributed by Dr. David P. Butts of the University of Georgia and Dr. Robert Howe of Ohio State University at a regional meeting of the National Science Teachers' Association in New Orleans in 1985 appeared most adaptable for use in constructing a self concept instrument having the desired qualities. The investigators designed the initial instrument consisting of 62 Likert-type items which asked individuals to rate themselves on certain criteria relative to an outstanding teacher. After completing a pilot study with 92 preservice teachers and conducting item analysis, the number of items was reduced to 32.

Reliability of the Instrument

Initial internal reliability of the instrument was derived for a study of the 32 items in the initial pilot study. An alpha coefficient of .82 was found. Then, a second group of 42 student teachers were tested and a reliability coefficient of .92 was achieved. These 42 students were retested with the instrument one week later and a test-retest reliability coefficient as determined by the Spearman-Brown formula was found to be .89. Later, in a study of the internal consistency of the instrument with 426 student teachers an alpha coefficient of .96 was computed.

Concurrent Validity

Thirty-two preservice teachers were administered both the Tennessee Self Concept Scale and the Myself as a Teacher Scale to achieve a measure of concurrent validity for the MSTS. A modest correlation of .35 was achieved, indicating a low positive relationship between the two measures of self.

Predictive Validity

Handley and Thomson (1985) found that data from the Myself as a Teacher instrument was a significant predictor of student teacher's classroom performance. It explained nearly 5% of the supervisor teachers' ratings of their student teachers teaching performance when entered in a regression equation.

In another study of 35 first year teachers, Thomson and Handley (1986) discovered that scores from the MSTS were the best predictor of teacher morale as measured by the Purdue Teacher Opinionaire. Other variables considered were overall QPA, scores on the College Outcome Measures Test, ACT scores and creativity scores.

Construct Validity

Responses of 422 preservice and inservice teachers to the MSTS were factor analyzed through use of a principal component analysis. A varimax rotation was effected in this analysis. One major factor explaining 82% of the variance in the instrument was derived. Loadings of the 32 items of the MSTS on this factor are given in Table 1. Item No. 25, "How interesting are your classes?" loaded highest of all items in the overall factor.

Implications

The Myself as a Teacher Scale is an effective measure of teacher self concept on the surface dimension as explained by Soares and Soares (1977). It is a good predictor of teaching performance as rated by trained classroom observers. It is a better predictor of classroom performance than cognitive variables such as the scores of individuals on the National Teachers' Examination.

The MSTS was the best predictor of teacher morale for first year teachers when variables such as overall quality point average, scores on the College Outcome Measures Project Test, ACT scores and measures of creativity were also considered.

It is a reliable instrument and correlates modestly with other measures of self concept such as the Tennessee Self Concept Scale. It contains one major dimension of behavior, an overall measure of self concept as a teacher,which seems to serve as a significant assessment of these affective behaviors associated with teaching.

Table 1
Factor Loadings for Items of the MSTS

	Test Item	Factor Loading
1.	How do you rate yourself in school ability as compared with your close friends?	.61
2.	How do you rate yourself in your ability to teach as compared with others with your level of training and experience?	.94
3.	How do you rate yourself in your ability to teach as compared with the best teachers you had as a student?	.81
4.	If you attended graduate school, where do you think you would rank academically in your class?	.89
5.	In order to become a college or university professor three or more years of graduate study is necessary. How likely do you think it is that you could complete such advance work?	.83
6.	Forget for a moment how others grade your work. In your opinion, how good do you think your teaching is?	.94
7.	How important is it to you to do better than others in your school teaching?	.91
8.	How do you rate yourself in your ability to motivate students for learning?	.92
9.	How do you rate yourself in your ability to plan instruction appropriate for the students you teach?	.93
10.	How do you rate yourself in your ability to challenge advanced students to work up to their potential achievement?	.91
11.	How do you rate yourself in your ability to assist slow learners to achieve better?	.89

Table 1 Continued

	Test Item	Factor Loading
12.	How do you rate your ability to help students develop understandings, skills and knowledge?	.91
13.	How do you rate your sensitivity to individual differences?	.91
14.	How do you rate your ability to maintain good classroom discipline?	.88
15.	How do you rate your ability to develop good study habits in students?	.90
16.	How do you rate your skills in oral and written communications as a teacher?	.93
17.	Do you think that your personality and personal traits are appropriate to serve as a model for students?	.95
18.	Among other teachers you know, how do you rate yourself on your abilities to utilize a variety of teaching techniques and methods?	.94
19.	How do you rate yourself in your mastery of subject matter needed for instruction in the area of your teaching assignment?	.86
20.	How likely is it that you will still be teaching five years from now?	.90
21.	If you were teaching in a school and your principal chose a special committee of five teachers to work up a plan for improving instruction, how likely would it be that he/she would choose you as a member of the committee?	.92
22.	If the students were choosing a chaperon for a party after school, how likely would it be that they would choose you to oversee the event?	.93

Table 1 Continued

	Test Item	Factor Loading
23.	If a student had a problem at home and needed to talk about it with a teacher, how likely do you think it would be that you would be the teacher chosen by that student?	.93
24.	How do you rate yourself on the practice of allowing students to participate in the planning of how they will study a topic from their course of study?	.87
25.	How interesting are your classes?	.96
26.	How well do you think you are prepared to be a teacher?	.95
27.	How do you rate yourself in understanding the needs of children?	.95
28.	As compared with other teachers, how do you evaluate your relationship with your principal?	.92
29.	As compared with other teachers, how do you evaluate your relationship with parents?	.94
30.	Do you think it is likely that you will be recognized as a "star" teacher before you have taught 10 years?	.90
31.	If you rated yourself on enthusiasm for teaching how would you rate yourself?	.93
32.	How organized are you in planning your work?	.85

References

Burgy, O.R. (1972). Developing good teachers by strengthening student teachers' self concepts. Research Review. Washington,D.C.: ERIC Clearinghouse on Teacher Education. No. ED 0087774.

Doherty. J. (1980). An exploratory investigation into the relationship between self-esteem and teaching performance in a group of student teachers. Educational Review, 32:1, 21-55.

Fitts, W.H. (1965). Tennessee Self Concept Scale. Nashville, TN: Counselor Recordings and Tests.

Halpin, G. (1982). Personality characteristics and self concept of preservice teachers related to their pupil control activities. Journal of Experimental Education, 50:4, 95-99.

Handley, H.M. & Thomson, J.R. (1985). Cognitive and affective predictors of student teachers' classroom performance. Paper presented at the 14th Annual Meeting of the Mid-South Educational Research Association, Biloxi, MS.

Mundel-Atherstone, B. (1981). A personality profile of students who are successful [illegible]tudent teaching and teaching. Paper presented at annual [illegible]ting of the Canadian Society for the Study of Education, [illegible]treal, Quebec.

Soares, L.M. & Soares, A.T. (1977). The self concept: Mini, maxi or multi? Paper presented at the annual meeting of the American Educational Research Association, New York City, NY.

Thomson, J.R. & Handley H.M. (1986). Personal traits as predictors of first year teachers' morale. Paper presented at the 15 annual meeting of the Mid-South Educational Research Association, Memphis, TN.